

Introduction to Reflections, Translations, and Rotations

1. On your graph paper draw and label a square. Describe its original position and size.

Rotate it 90 degrees. Translate it so that it is in the 4th quadrant.

Reflect it over a line $y = \text{"a number"}$ so that the square is in the 1st quadrant.

Write 2 distinctly different ways that you can get the shape back in its original position.

2. On your graph paper draw and label a triangle. Describe its original position and size.

Rotate, Translate, and Reflect the triangle so that the one side is touching an original side in such a way that it forms a parallelogram. List your steps here:

3. On your graph paper draw and label a parallelogram. Describe its original position and size.

Rotate, Translate, and Reflect the parallelogram several times, listing your steps here:

Now, challenge a friend to get the parallelogram back into its original position! Are the steps that your friend used the reverse of your steps, or are they different?